

**To:** CN=Bernadette Rappold/OU=DC/O=USEPA/C=US@EPA;CN=Andrew Stewart/OU=DC/O=USEPA/C=US@EPA;CN=Tim Sullivan/OU=DC/O=USEPA/C=US@EPA[]; N=Andrew Stewart/OU=DC/O=USEPA/C=US@EPA;CN=Tim Sullivan/OU=DC/O=USEPA/C=US@EPA[]; N=Tim Sullivan/OU=DC/O=USEPA/C=US@EPA[]

**Cc:** []

**From:** CN=Lauren Kabler/OU=DC/O=USEPA/C=US

**Sent:** Thur 6/21/2012 8:18:50 PM

**Subject:** GAO Study on Hydraulic Fracturing - Appendices and Questions

[Appendix - CWA - sw edits.DOC](#)

[Appendix - CWA bdEdits 061212.DOC](#)

[Qs and As for GAO 6 18 12 jbj bjk edits.docx](#)

[Appendix-EPCRA OEM edits with response to GAO question 6-14-12.doc](#)

[Appendix-EPCRA OEM edits with response to GAO question 6-14-12 redline removed.doc](#)

[Follow-up questions regarding the Clean Air Act.doc](#)

[Appendix - Clean Air Act for EPA Review.DOC](#)

[APPENDIX - CERCLA.DOC](#)

[Appendix - TSCA.DOC](#)

[Appendix - EPCRA.DOC](#)

[Appendix - SDWA.DOC](#)

[Appendix - CWA.DOC](#)

<http://water.epa.gov/type/groundwater/uic/guidance.cfm>

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FYI - I'm out tomorrow and Monday so would you all mind sending your comments on each appendix and answers to the enforcement-related questions to Gwen by Monday COB (cc: me). Also, if there are any showstopper/controversial issues (including any concerns with other AA'ship's comments), please run by Pam or Kate before you send. Thanks!

Lauren V. Kabler  
Special Counsel  
Office of Civil Enforcement  
US EPA  
Phone: 202.564.4052  
Fax: 202.564.0019

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----- Forwarded by Lauren Kabler/DC/USEPA/US on 06/21/2012 03:55 PM -----

From: Lauren Kabler/DC/USEPA/US  
To: Bernadette Rappold/DC/USEPA/US@EPA, Andrew Stewart/DC/USEPA/US@EPA, Tim Sullivan/DC/USEPA/US@EPA  
Cc: Pam Mazakas/DC/USEPA/US@EPA, Kate Anderson/DC/USEPA/US@EPA, Johnpc Fogarty/DC/USEPA/US@EPA  
Date: 06/14/2012 05:23 PM  
Subject: Fw: GAO Study on Hydraulic Fracturing - Appendices CAA, CERCLA, TSCA, EPCRA, CWA, SWA

The good news is that we got a one week extension - until June 25th - to get our comments on the appendices and our answers to the enforcement-related questions to OAP. The bad news is that we're now being asked to review the comments of other AA'ships. Suggest focusing on our comments/answers to questions first and then turn to reviewing comments by others in the little bit of time you'll likely have left. If you do have any concerns about another AA'ships' comments just reach out to the POC listed below and try to resolve - if it can't be resolved then let us know. Also, after you have finished with an appendix and associated questions send it to me - we're going to submit our comments forward on a rolling basis.

Please let me know if any questions - I know this is confusing.

Thanks!

Lauren V. Kabler  
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----- Forwarded by Lauren Kabler/DC/USEPA/US on 06/14/2012 05:16 PM -----

From: Gwendolyn Spriggs/DC/USEPA/US  
To: Lauren Kabler/DC/USEPA/US@EPA, Mamie Miller/DC/USEPA/US@EPA, Stephen Keim/DC/USEPA/US@EPA, Jonathan Cole/DC/USEPA/US@EPA  
Cc: Tayoka Hall/DC/USEPA/US@EPA, Joyce Olin/DC/USEPA/US@EPA, Dan Drazan/DC/USEPA/US@EPA, Kimberley DePaul/DC/USEPA/US@EPA  
Date: 06/14/2012 03:31 PM  
Subject: Fw: GAO Study on Hydraulic Fracturing - Appendices CAA, CERCLA, TSCA, EPCRA, CWA, SWA

UPDATE -

Liaisons,

GAO granted EPA an extension to complete its review of the appendices. At this time, OCEA has until Monday, June 25th to complete its review of ALL appendices, including the technical coordination with the program offices. In this email, I have attached the comments received, to date, from the different program offices (i.e., CWA and EPCRA). The comments include a point of contact (POC) for technical coordination. Should your office have any concerns with the technical comments received from the program offices, pls work with the POCs to resolve the issue(s). After the technical coordination is resolved/completed, pls send the final version of technically coordinated appendices to my attention, via email, no later than Monday, June 25th. Provided below are the appendices and/or GAO questions that I have received. I will forward others as they are received. You are also requested to release each appendices as it is completed. Please do not hold the approved appendices to release at one time. OGC, OCFO and GAO would greatly appreciate receiving all documents as they are completed.

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The OW comments on the CWA appendix are provided below along with the appropriate POC:

Comments from the Wastewater Mgmt Office - Scott Wilson 564-6087

In answer to GAO's question of how many facilities are permitted under the Agriculture and Wildlife Use Subcategory, there are 114 facilities permitted.

My suggested edits to the CWA appendix are attached.

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Comments from the Science & Technology Office - Brian Damico 566-1069

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Answers to SDWA questions from Bruce Kobelski 564-3888 (These comments have been sent forward to OGC, pls still review/comment)

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The OSWER comments on the EPCRA appendix are provided below along with the appropriate POC:

NOTE: Both a redline/strikeout version and final version are attached. POC: Kim Jennings 564-7998

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Additional Information:

GAO plans to release its statement of facts (SOFs) on June 22nd. An exit conference is being planned to follow on Monday, July 9th in the afternoon. It is anticipated there will be a large number of EPA participants, and therefore, program offices are encouraged to send 1-2 technical subject matter experts. Please share the names of individuals that you would like to participate in the exit conference by Tuesday, June 19th.

Please contact me if you have any questions.

Gwendolyn Spriggs  
202-564-2439

----- Forwarded by Gwendolyn Spriggs/DC/USEPA/US on 06/14/2012 02:36 PM -----

From: Gwendolyn Spriggs/DC/USEPA/US  
To: Stephen Keim/DC/USEPA/US@EPA, Mamie Miller/DC/USEPA/US@EPA, Lauren Kabler/DC/USEPA/US@EPA, Jonathan Cole/DC/USEPA/US@EPA  
Cc: Tayoka Hall/DC/USEPA/US@EPA  
Date: 06/13/2012 04:36 PM  
Subject: Fw: GAO Study on Hydraulic Fracturing - Appendices CAA, CERCLA, TSCA, EPCRA, CWA, SWA

UPDATE!!!!!!

Liaisons,

I wanted to let your know GAO will release a RCRA appendix. I believe it will be released within the next day or so. I will send the appendix upon receipt.

Also, I have been working with the Agency liaisons to determine the best method to complete this exercise. What has been agreed to is the following:

- 1) All AAships (OSWER, OW, OAR, etc.) will complete their review of appendices and send to OECA/OAP.
- 2) OECA program offices will review all appendices for enforcement/compliance issues.
- 3) All AAships will send their appendices comments to OECA/OAP, which will be forwarded to the appropriate OECA program offices for coordination/concurrence. (NOTE: PLEASE ADVISE IF YOU DO NOT BELIEVE YOUR OFFICE NEEDS TO REVIEW THE COMMENTS MADE BY THE PROGRAM OFFICES).
- 4) The coordinated comments on each appendices will be sent to OGC and OCFO for final review/concurrence, and released to GAO.
- 5) This process is requested to be completed by Monday 6/18. HOWEVER, an extension is being requested from GAO. I will update you when I have an official due date.

Finally, OCFO is planning an exit conference and would like all offices to provide the names of individuals that should attend. Please share the names of staff that should attend an exit conference for OECA by next Wednesday, 6/20/12.

Call with any questions...Thanks, GJS 564-2439

----- Forwarded by Gwendolyn Spriggs/DC/USEPA/US on 06/13/2012 03:53 PM -----

From: Gwendolyn Spriggs/DC/USEPA/US

To: Lauren Kabler/DC/USEPA/US@EPA, Mamie Miller/DC/USEPA/US@EPA, Jonathan Cole/DC/USEPA/US@EPA, Stephen Keim/DC/USEPA/US@EPA

Cc: Kimberley DePaul/DC/USEPA/US@EPA, Joyce Olin/DC/USEPA/US@EPA, Tayoka Hall/DC/USEPA/US@EPA

Date: 06/12/2012 03:15 PM

Subject: GAO Study on Hydraulic Fracturing - Appendices CAA, CERCLA, TSCA, EPCRA, CWA, SWA

OECA,

Over the past few days, I've tried to obtain additional information/clarification on this GAO study. OCFO is still working on sharing more instruction. While I am not completely clear on what is expected of OECA, I wanted to make sure OECA was responsive to GAO and OCFO. I am hopeful OCFO will share more information/guidance to the liaisons over the next few days. I'll update you as I learn more. In the meantime, here's a plan for OECA:

The attachments below are a list of the GAO appendices. I request that each OECA program office review the appendices and determine which appendices is within your purview. If your office is not responsible for an appendices, please respond with a "NA" next to the appendices that your office will not provide comments on. If your office does have involvement on any appendices, I request that your office review and comment on the appendices, as well as, provide responses to the questions immediately following the appendices, specifically those that involve enforcement.

Your response/comments are requested no later than Thursday, June 14th. I do not believe there will be an extension. I will consolidate all OECA comments and forward the information to OCFO for the official OECA response.

Also, I believe only one program office has scheduled a meeting. OAR is scheduled to meet today with other program offices to discuss the CAA. This is scheduled to occur today at 3:30PM. To my knowledge, no other program offices have scheduled meetings. Should anyone in your office be contacted directly, please notify me of the meeting.

OW determined that there's some enforcement info that should be reviewed by OECA, so please be certain to review the SDWA attachment below. Also, GAO provided a separate list of enforcement questions, which you will find at the end of this email - immediately following all the appendices. Please review and respond.

If you have questions, please call on 564-2439.

Thanks, GJS

CAA:

CERCLA:

1. At our meeting, we believe we heard that EPA had used CERCLA section 104(e) to collect information on unconventional oil and gas activities to support the hydraulic fracturing study. However, our review of the Halliburton subpoena and the information request letters sent to hydraulic fracturing service companies and to oil and gas companies do not reflect CERCLA authorities. Please clarify.

TSCA:

1. Please provide a few (3-5) examples of chemicals that are commonly used in hydraulic fracturing and that are on the TSCA inventory list.
2. What is the status of EPA's response to the August 2011 Earthjustice Petition? If it is not yet released, is there a timeline for when it will be released?
3. What is the status of the ANPRM?

EPCRA:

1. At our last meeting officials said they were unsure to what extent hydraulic fracturing or other chemicals on oil and gas wellsites would trigger EPCRA 311 and 312 reporting requirements and agreed to provide additional information after touching base with EPA regions. What additional context can you provide? Specifically we would be interested in a few (3-5) examples of some EPCRA chemicals that are likely to be found at oil and gas well sites in quantities sufficient to trigger EPCRA 311 and 312 reporting requirements, or if EPA believes that most well sites would be unlikely to store chemicals over the triggers.
2. To what extent does the exclusion of oil and gas well sites from TRI reporting requirements impair EPA's ability to ensure communities receive needed information about chemical use and releases?
3. In the interview, EPA indicated it had a document that looks at whether thresholds for TRI reporting might be triggered at some oil and gas well sites. It was described as a 1997 Supporting document containing the screening process, and possibly estimating the number of facilities that would be affected, and it was noted that it was in the docket but hard to find. Please provide a copy of this document.
4. Can EPA provide any updated information on its consideration of oil and gas exploration and production sites for inclusion in the TRI? Are there any documents available? When does EPA expect to issue the proposed rule, or ANPRM?
5. In the 1996 proposal for the Industry Expansion Rule, EPA stated that oil and gas extraction activities "may involve the management of significant quantities of EPCRA section 313 chemicals." 61 Fed. Reg. 33588, 33592 (1996). Please identify the section 313 chemicals that are managed in significant quantities in conjunction with oil and gas extraction.

SWA

As a reminder, the purpose of the appendices is to describe the Act and how it regulates oil and gas well sites and the activities that go on there, including hydraulic fracturing. The appendices are more technical and contain more detail about each Act than will be discussed in the main body of the report. We are providing these appendices significantly in advance of our exit conference (early July) to (1) provide additional time for EPA to review the material and (2) share any corrections/changes/clarifications with us in advance of the exit. We would prefer to receive any corrections/changes/clarifications in writing (email or word document). This will allow us to focus the exit conference on the main body of the report.

Follow-up questions about the Safe Drinking Water Act

1. What is the status of seismic workgroup? What output (documents) is expected? What are the timelines?
2. To what extent does the exemption of hydraulic fracturing (except with diesel) from UIC requirements impair EPA's ability

to protect underground sources of drinking water?

3. Is the 2003 MOU with Halliburton, BJ Services, and Schlumberger still in effect as to all 3 companies? (Paragraph V provides that any Company or EPA may terminate its participation in this MOA by providing written notice to the other signatories.) Has EPA received any notifications of diesel use under the agreement?

4. Regarding these provisions:

144.21(c): Injection into a well authorized by rule is prohibited... (9) For Class II wells (except enhanced recovery and hydrocarbon storage), five years after the effective date of the UIC program unless a timely and complete permit application is pending the Director's decision.

144.21 (d) Class II and III wells in existing fields or projects. Notwithstanding the prohibition in § 144.11, this section authorizes Class II and Class III wells or projects in existing fields or projects to continue normal operations until permitted, including construction, operation, and plugging and abandonment of wells as part of the operation...

Please confirm it is accurate to summarize as follows: "Existing Class II wells, and new such wells built in existing fields, were generally authorized by rule for up to five years from the effective date of the initial program (for federal implementation states, 1989), subject to conditions and requirements, with the expectation that these wells would obtain permits for continued operations thereafter." We would like to explain at a high level that over time, most existing Class II injection wells would come under the regulations. If this is incorrect, please explain. For example, if most pre-existing injection wells are still operating under section 144.21(d), please state as much.

5. Does EPA have any information on whether some class II wells continue to operate under the authorization by rule, or should they all be under a permit by now?

6. In an interview, EPA officials suggested we refer to guidance on how to do site characterization for area of review, as potentially being relevant to seismicity concerns. We reviewed guidance on this website <http://water.epa.gov/type/groundwater/uic/guidance.cfm> but did not see anything that adds significantly to what is in the regulation for site characterization. Please point to any relevant guidance.

7. Explain what EPA approval procedures and requirements pertain to state designations of exempted aquifers under the provision that they are, or capable of, hydrocarbon production. See 40 C.F.R. § 144.7(b)(3) ("For approved State programs exemption of aquifers identified (i) under § 146.04(b) shall be treated as a program revision under § 145.32"); § 146.04(b) (allowing exemption of aquifers that are producing or are economically producible for hydrocarbons); § 145.32 (establishing procedures for EPA approval of program revisions). If EPA is not required to approve these, please explain.

8. An EPA presentation suggested that EPA, in direct implementation states, can require plugging of old/abandoned wells in a formation prior to permitting a new injection well. Is this correct? If so please provide citations as appropriate.

CWA

Follow-up questions regarding the Clean Water Act

1. Regarding the SPCC program, you told us that in FY11 EPA conducted 120 oil and gas well sites and found noncompliance at 105 of these sites. You also said that the noncompliance ranged from paperwork inconsistencies to "more serious violations." How many of the 105 noncompliance issues were "more serious violations?" Please provide 3-5 examples of what constitutes a "more serious violation."

2. Does EPA have any information on the number of NPDES permits issued for dischargers in the Agricultural and Wildlife Water Use subcategory? If state-issued permit information is not available, does EPA have these data for locations that it directly implements the NPDES program? Finally, have any EPA studies (other than the coalbed methane study) looked at either the number of Agricultural and Wildlife Water Use dischargers, or the number of such permits?

3. Is EPA aware of any instances where any general pretreatment provision (e.g., corrosion, pass-through causing violation of a NPDES permit, interference with sludge) was violated by an indirect discharge of produced wastewater?

Additionally Enforcement Questions received from GAO:

1. Throughout this engagement, we have asked media offices and regions to share examples of where EPA has been involved in investigating possible contamination or violations, and examples of enforcement actions, at well sites. We have received the following examples -- are there additional investigations or examples of enforcement actions at well sites that we should be aware of?

- a. Pavilion, WY
- b. Range Resources, Parker County, TX
- c. Dimock, PA

- d. Chesapeake Energy, Bradford County, PA
  - e. BP Alaska (1992-1995) - Conventional well
  - f. Poplar, MT - conventional well
2. In addition, several programs provided examples or discussed compliance or enforcement actions at wells, such as Region 3 & 6 Clean Air Act General Duty Clause inspections. Other programs could identify compliance or enforcement actions at oil and gas production facilities but could not easily identify whether some involved well sites, such as SPCC inspections (note: we submitted a separate question on those).
- a. Are there any other examples of investigations or enforcement focused on well sites that EPA would like to share with us?
  - b. Does EPA have any ideas about why there are relatively few such activities at well sites?
3. Re: Bradford County PA blowout - We have a copy of EPA's letter to Chesapeake sent April 22, 2011 requesting information.
- a. What happened after that?
  - b. If Chesapeake responded, please provide a copy of the response.
  - c. If not, did Chesapeake provide the list of chemicals contained in the releases?
  - d. Did EPA drop its investigation and defer to the state? Please explain.